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(19) **United States**(12) **Patent Application Publication****Guo et al.**(10) **Pub. No.: US 2019/0106452 A1**(43) **Pub. Date: Apr. 11, 2019**(54) **RNA NANOPARTICLES FOR BRAIN TUMOR TREATMENT****Publication Classification**(71) Applicant: **UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION,**
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Hui Li, Columbus, OH (US)(51) **Int. Cl.****C07H 21/02** (2006.01)**A61P 35/00** (2006.01)**A61K 47/55** (2006.01)**C12N 15/113** (2006.01)**C12N 15/115** (2006.01)(52) **U.S. Cl.**CPC **C07H 21/02** (2013.01); **A61P 35/00**
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ABSTRACT

The presently-disclosed subject matter relates to an artificial RNA nanostructure molecule and method to treat brain tumor in a subject. More particularly, the presently disclosed subject matter relates to a RNA nanostructure containing a multiple branched RNA nanoparticle, a brain tumor targeting module, and an effective amount of a therapeutic agent. Further, the presently disclosed subject matter relates to a method of using the RNA nanostructure composition to treat brain tumor in a subject having or at risk of having brain tumor.

Specification includes a Sequence Listing.**Related U.S. Application Data**

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